

# INFORMATION ONLY

ROCKY FLATS ENVIRONMENTAL  
TECHNOLOGY SITE

EMD OPERATING  
PROCEDURES MANUAL  
VOL I: FIELD OPERATIONS

Manual No.: 5-21000-OPS-FO  
New Manual No.: 1-11000-ER-OPS-FO  
Procedure No.: Table of Contents, Rev 81  
Page: 1 of 4  
Effective Date: 02/16/95  
Organization: Environmental Management

THIS IS ONE VOLUME OF A SIX VOLUME SET WHICH INCLUDES:

VOLUME I: FIELD OPERATIONS (FO)  
VOLUME II: GROUNDWATER (GW)  
VOLUME III: GEOTECHNICAL (GT)  
VOLUME IV: SURFACE WATER (SW)  
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FO.01	Air Monitoring and Dust Control	2	05/12/92
FO.02	94-DMR--000563 - Cancellation of Transmittal of QA Records	3	04/15/94
FO.03	General Equipment Decontamination	2	05/12/92
94-DMR-001021	Section FO.03 Text Addition	2	05/26/94
94-DMR-001010	LIMITED SCOPE - Section FO.03 Text Modification	2	06/01/94
94-DMR-001224	Equipment Decontamination Location Adjustment	2	07/15/94
•95-DMR-000096	Quality Control Samples	2	02/16/95
FO.04	Heavy Equipment Decontamination	2	05/12/92
94-DMR-001009	LIMITED SCOPE - Section FO.04 Text Modification	2	06/01/94
FO.05	Handling of Purge and Development Water	2	05/12/92
94-DMR-000278	Groundwater Monitoring Modifications	2	02/25/94
FO.06	Handling of Personal Protective Equipment	2	05/12/92
FO.07	Handling of Decontamination Water and Wash Water	2	05/12/92
94-DMR-001175	LIMITED SCOPE - Decontamination Water Disposal Location Changes	2	06/20/94
FO.08	Handling of Drilling Fluids and Cuttings	2	05/12/92
94-DMR-001650	Procedural Clarifications	2	09/27/94
FO.09	Handling of Residual Samples	2	05/12/92

DOCUMENT CLASSIFICATION REVIEW WAFER  
PER R.B. HOFFMAN, CLASSIFICATION OFFICE  
JUNE 11, 1991

A-SW-001010

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FO.10	Receiving, Labeling, and Handling Environmental Materials Containers	2	05/12/92
93-DMR-000677	DMR	2	11/01/93
94-DMR-000244	Drying Agent Modification	2	03/14/94
94-DMR-000558	Form Modification	2	04/15/94
94-DMR-001649	Deletion of Text Addressed in FO.08	2	09/27/94
FO.11	Field Communications	2	05/12/92
FO.12	Decontamination Facility Operations	2	05/12/92
94-DMR-002244	Change of Decontamination Site for Field Equipment	2	12/22/94
FO.13	Containerization, Preserving, Handling and Shipping of Soil and Water Samples	2	05/12/92
93-DMR-000530	Section FO.13 Modification	2	11/04/93
93-DMR-000667	Section FO.13 Modification	2	11/20/93
94-DMR-000143	Composite Sampling Clarification	2	02/11/94
94-DMR-001670	New Statement of Work	2	09/15/94
FO.14	4-B29-ER-OPS-FO.14 - Field Data Management	3	09/09/94
•95-DMR-000097	Revision of Form FO.14L	3	02/16/95
FO.15	Photoionization Detectors and Flame Ionization Detectors	2	05/12/92
•95-DMR-000098	Change to Form FO.15A	2	02/16/95
FO.16	Field Radiological Measurements	2	05/12/92
•95-DMR-000099	Editorial Correction to Form FO.16B	2	02/16/95
FO.18	Environmental Sample Radioactivity Content Screening	1	05/12/92
•95-DMR-000100	Change to necessary forms for FO.18A & FO.18B	1	02/16/95
FO.19	Base Laboratory Work	2	05/12/92

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FO. 23	4-F99-OPS-FO.23 - Management of Soil and Sediment Investigative Derived Materials (IDM)	0	01/11/94
94-DMR-000137	Training Requirements Clarification	0	01/28/94
94-DMR-000148	Section FO.23 Modifications	0	02/09/94
94-DMR-001108	Buried Instrumentation and Existing Soil	0	06/14/94
94-DMR-001350	Various Text Additions and Deletions Regarding Drums and Use of SOP FO.29	0	08/16/94
FO.25	4-B11-ER-OPS-FO.25 - Shipment of Radioactive Materials Samples	0	12/01/93
FO.27	4-BO1-ER-OPS-FO.27 - Collection of Floor/Equipment Hot Water Rinsate Samples	0	07/26/93
FO.29	4-H46-ENV-OPS-FO.29 - Disposition of Soil and Sediment Investigation-Derived Materials	0	06/24/94
94-DMR-001226	Allowance of Procedural Use for Waste Piles	0	07/15/94
94-DMR-001741	Permission of Use of Computer-Generated Forms and Other Minor Corrections	0	10/07/94
FO.30	4-I11-ER-OPS-FO.30 - Environmental Restoration Program Division Equipment Operation	0	10/07/94
FO.31	4-I49-ENV-OPS-FO.31 - Groundwater Recovery/Storage System Normal Operations OU1, Bldg 891	0	11/23/94
FO.32	4-I50-ENV-OPS-FO.32 - Treated Effluent Discharge OU1, Bldg 891	0	04/13/94
FO.33	4-I51-ENV-OPS-FO.33 - Treated Effluent Recirculation OU1, Bldg 891	0	12/22/94
FO.34	4-I52-ENV-OPS-FO.34 - Ion Exchange System - Normal Operations OU1, Bldg 891	0	11/23/94
95-DMR-000061	Addition of OU1 Form	0	02/14/95
FO.35	4-I53-ENV-OPS-FO.35 - Ultraviolet/Hydrogen Peroxide Oxidation System - Normal Operations OU1, Bldg 891	0	11/15/94
95-DMR-000062	Addition of OU1 Form	0	02/14/95
FO.37	4-I55-ENV-OPS-FO.37 - Neutralization Tank - Normal Operations OU1, Bldg 891	0	11/23/94

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FO.38.	4-I56-ENV-OPS-FO.38 - Bulk Chemical Handling, Transfer, and Storage, OU1, Bldg 891	0	12/02/94
FO.39	4-I57-ENV-OPS-FO.39 - Calibration, Operation, and Maintenance of Monitoring and Fluid Handling Equipment OU1, Bldg 891	0	12/02/94
FO.43	4-I61-ENV-OPS-FO.43 - Filter Press Operation and Cleaning OU2 Field Treatability Unit	0	12/16/94
FO.47	4-J39-ENV-OPS-FO.47 - Disposal of Residual Accuvac™ Reagent Ampules	0	02/14/95

**Refer to 1-A01-PPG-001 for Processing Instructions.**  
**Print or Type All Information (Except Signatures)**

Refer to 1-A01-PPG-001 for Processing Instructions. Print or Type All Information (Except Signatures)			1. Date 1/30/95		25. DMR. No. 95-DMR-000098	
2. Existing Document Number/Revision 5-21000-OPS-FO.15, Rev. 2			3. New Document Number if it is to be changed with this Revision N/A			
Originator's Name/Phone/Page/Location Craig Cowdery, x6953, Interlocken Bldg. 080			5. Document Title Photoionization Detectors (PIDs) and Flame Ionization Detectors (FIDs)			
6. Document Type <input checked="" type="checkbox"/> Procedure <input type="checkbox"/> Other		7. Document Modification Type (Check only one) <input type="checkbox"/> New <input type="checkbox"/> Revision <input type="checkbox"/> Intent Change <input checked="" type="checkbox"/> Nonintent Change <input type="checkbox"/> Editorial Correction <input type="checkbox"/> Cancellation				
8. Item	9. Page	10. Step	11. Proposed Modifications			
1	6	9.0	Change "Form FO.15A, Calibration Record, will be used to document daily calibrations."  To "Form FO.15A, Calibration Record, <u>or an equivalent form</u> , will be used to document daily calibration."			
12. Justification (Reason for Modification, EJO#, TP#, etc.) Limited Application to OU8, OU9, OU10, OU12, OU13, OU14, and the Well Abandonment and Replacement Program.  This change is required to permit the use of a substantially similar form that contains additional pertinent calibration information.						
If modification is for a new procedure or a revision, list concurring disciplines in Block 13, and enter N/A in Blocks 14 and 15. If modification is for any type of change or a cancellation, organizations are listed in Block 13, then Concurrer prints, and signs in Block 14, and dates in Block 15.						
13. Organization		14. Print and Sign (if applicable)			15. Date (if applicable)	
SME		Craig Cowdery				
Project Mgr.		R. Stephen Laker			2-13-95	
QA						
16. Originator's Supervisor (print/sign/date)		17. Assigned SME/Phone/Page/Location				
Bruce D. Peterman		Craig Cowdery/x6953/05966/080				
18. Cost Center		19. Charge Number		20. Requested Completion Date		
				2/16/95		
22. Accounted For/By?		23. ORC Review				
Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>		N/R				
24. Responsible Manager (print, sign, date) Bruce D. Peterman						

received for distribution 2/15/95 done

REVIEWED FOR CLASSIFICATION/UCN

BY NA

DATE NA

**PHOTOIONIZATION DETECTORS (PIDS) AND FLAME IONIZATION DETECTORS  
(FIDS)**

**EG&G ROCKY FLATS PLANT  
EMD MANUAL OPERATION SOP**

**Category 2**

**Manual:  
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6	02/16/95	95-DMR-000098

**TOTAL NUMBER OF PAGES: 7**

# PHOTOIONIZATION DETECTORS (PIDS) AND FLAME IONIZATION DETECTORS (FIDS)

EG&G ROCKY FLATS PLANT  
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Category 2

PIDs and FIDs will be checked periodically during use to ensure that they are responding to contaminants. A Magic Marker® used as a source of volatile gas works well to demonstrate that the instrument is responding.

The manufacturer's operating manual will be used for the operation, calibration, maintenance, and care of FIDs and PIDs. The manual will be present on site at all times.

## 9.0 DOCUMENTATION

Use of PIDs and FIDs will be in accordance with the Health and Safety Plan or SOPs requiring its use. Observations or calculations will be documented by personnel in a bound, water-proof field notebook. Observations that need to be documented will be entered into the site manager's daily logbook. Entries will be signed and dated by field personnel making the entries. Form FO.15A, Calibration Record, or an equivalent form, will be used to document daily calibrations. The Calibration Record asks for the following information:

- Date/Time.
- Initial Response - Initial Response is the first meter reading obtained with calibration gas to either adjust instrument or note how far off the instrument is drifting depending on whether an HNu or Thermal Environmental is used.
- Alarm Setting.
- Calibration Sequence Initiated - Cal sequence is a feature specific to the Thermal Environmental System Model 580B. Calibration must be done twice on